## One

## Financial Statements and Projections

Financial modeling is the fundamenta! building block of analysis in investment banking. We will take a look at Walmart and analyze its financial standing, building a complee financial model as it would be done by Wall Street analysts.

The goals of this section are:

1. Understanding financial statements
a. Concepts
b. Historical andiysis
c. Making piojections
d. Model flew between the statements
2. Ability to build a complete financial model of Walmart

It is recommended that a financial model be built in six major components:

1. Income statement
2. Cash flow statement
3. Balance sheet
4. Depreciation schedule
5. Working capital
6. Debt schedule

The first three are the major statements: income statement, cash flow statement, and balance sheet. The latter three help support the flow and continuity of the first three. It is also not uncommon to have even more supporting schedules depending on the required analysis. Notice the first six tabs in the model template ("NYSF-Walmart-Template.xls"). Each reflects the six major model components. Please use the template and follow along as we build the model together.

## AHPITRT 1

## The Income Statement

The income statement measures a company's profit (or loss) over a specific period of time. A business is generally required to report and record the sales it generates for tax purposes. And, of course, taxes on sales made can be reduced by the expenses incurred while generating those sales. Although there are specific rules that govern when and how these expense reductions can be utilized, there is still a general concept:
Profit = Revenue - Expenses

A company is taxed on profit. So.

$$
\text { Net Income = Profit }- \text { Tax }
$$

However, income statements have grown to be quite complex. The multifaceted categories of expenses can vary from company to company. As analysts, we need vo identify major categories within the income statement in order to facilitate proper analysis. For this reason, one should always categorize income statement line items into nine major categories:

1. Revenue (sales)
2. Cost of goods sold
3. Operating expenses
4. Other income
5. Depreciation and amortization
6. Interest
7. Taxes
8. Non-recurring and extraordinary items
9. Distributions

No matter how convoluted an income statement is, a good analyst would categorize each reported income statement line item into one of these nine categories. This will allow an analyst to easily understand the major categories that drive profitability in an income statement and can further allow him or her to compare the profitability between several different companies-an analysis very important in determining relative valuation. This book assumes you have some basic understanding of accounting, so we will just briefly recap the line items.

## REVENUE

Revenue is the sales or gross income a company has made during a specific operating period. It is important to note that when a how revenue is recognized can vary from company to company and nay be different from the actual cash received. Revenue is recognized when 'realized and earned," which is typically when the products sold have been transferred or once the service has been rendered.

## COST OF GOODS SOLD

Cost of goods sold is the direct costs attributable to the production of the goods sold by a company. These are the costs most directly associated to the revenue. This is typically the cost of the materials used in creating the products sold, although some other direct costs could be included as well.

## Gross Profit

Gross profit is not one of the nine categories listed, as it is a totaling item. Gross profit is the revenue less the cost of goods sold and is helpful in determining the net value of the revenue after the cost of goods sold is removed. One common metric analyzed is gross profit margin, which is the gross profit divided by the revenue. We will calculate these totals and metrics for Walmart later in the chapter.

A business that sells cars, for example, may have manufacturing costs. Let's say we sell a car for $\$ 20,000$, and we manufacture the cars in-house. We have to purchase $\$ 5,000$ in raw materials to manufacture the car. If we sell one car, $\$ 20,000$ is our revenue and $\$ 5,000$ is the cost of goods sold. That leaves us with $\$ 15,000$ in gross profit, or a 75 percent gross profit margin. Now let's say in the first quarter of operations we sell 25 cars.

That's $25 \times \$ 20,000$, or $\$ 500,000$ in revenue. Our cost of goods sold is $25 \times \$ 5,000$, or $\$ 125,000$, which leaves us with $\$ 375,000$ in gross profit.

| Car Co. | 1Q 2012 |
| :--- | ---: |
| Revenue | $500,000.0$ |
| COGS | $125,000.0$ |
| Gross Profit | $375,000.0$ |
| $\%$ Gross Profit Margin | $75 \%$ |

## OPERATING EXPENSES

Operating expenses are expenses incurred by a company as a result of performing its normal business operations. These are the relatively indirect expenses related to generating the company's revenue and supporting its operations. Operating expenses can be broken inis several other major subcategories, the most common of which are:

Selling, General, and Administrative $\mathcal{F G} A$ expenses and all general and administrative expenses of a company. Examples are employee salates and rents.
Advertising and Marketing. These are expenses relating to any advertising or marketing initiatives the company employs. Examples are print advertising and Google Adwords.
Research and Deic!opment ( $R \in D$ ). These are expenses relating to furthering the development of the company's product or services.

Let's say in our car business, we have employees to whom we have paid $\$ 75,000$ in total in the first quarter. We also have rents to pay of $\$ 2,500$, and we ran an advertising initiative that cost us $\$ 7,500$. Finally, let's assume we have employed some R\&D efforts to continue to improve the design of our car that costs roughly $\$ 5,000$ per quarter. Using the previous example, our simple income statement looks like this:

| Car Co. | 1Q 2012 |
| :--- | :--- |
| Revenue | $500,000.0$ |
| COGS | $125,000.0$ |
| Gross Profit | $375,000.0$ |
| \% Gross Profit Margin | $75 \%$ |


| Operating Expenses |  |
| :--- | ---: |
| SG\&A | $77,500.0$ |
| Advertising | $7,500.0$ |
| R\&D | $5,000.0$ |
| Total Operating Expenses | $\mathbf{9 0 , 0 0 0 . 0}$ |

## OTHER INCOME

Companies can generate income that is not core to their business. As this income is taxable, it is recorded on the income statement. However, since it is not core to business operations, it is not considered revenue. Let's take the example of the car company. A car company's core business is producing and selling cars. However, many car companies also generate income in another way: financing. If a car company offers its customers the ability to finance the payments on a car, those payments come with interest. The car company receives that interest. That interest is taxable and is considered additional income. However, as that income is not core to the business, it is not considered revenue; it is considered orher income.

Another common example of ther income is "income from noncontrolling interests," also known as "income from unconsolidated affiliates." This is income received when one company has a noncontrolling interest investment in another company. So when a company (Company A) invests in another company (Company B) and receives a minority stake in Company B, Company B distributes a portion of its net income to Company A. Company A records those distributions received as other income.

## EBITDA

Earnings before interest, taxes, depreciation, and amortization (EBITDA) is a very important measure among Wall Street analysts. We will later see its many uses as a fundamental metric in valuation and analysis. It can be calculated as Revenue - COGS - Operating Expenses + Other Income.

It is debatable whether other income should be included in EBITDA or not. There are two sides to the argument.

1. It should be included in EBITDA. If a company produces other income it should be represented as part of EBITDA, and other income should be listed above our EBITDA total. The argument here is that other
income, although not core to revenue, is still in fact operating and should be represented as part of the company's operations. There are many ways of looking at this. Taking the car example, we can maybe assume that the financing activities, although not core to revenue, are essential enough to the overall profitability to be considered as part of EBITDA.
2. It should not be included in EBITDA. If a company produces other income it should not be represented as part of EBITDA, and other income should be listed below our EBITDA total. The argument here is although it is a part of the company's profitability, it is not core enough to the operations to be incorporated as part of the company's core profitability.

Determining whether to include other income as FiltDA is not so simple and clear cut. It is important to consider if the other income is consistent and reoccurring. If it is not, the case can more likely be made that it should not be included in EBITDA. It is aso important to consider the purpose of your particular analysis. For example, if you are looking to acquire the entire business, and that bliciness will still be producing that other income even after the acquisition, then maybe it should be represented as part of EBITDA. Cr, naybe that other income will no longer exist after the acquisition, in which case it should not be included in EBITDA. As another examplé, if you are trying to compare EBITDA with the EBITDA of other companies, then it is important to consider if the other companies also produce that same other income. If not, then maybe it is better to kep other income out of the EBITDA analysis, to make sure there is $\lambda^{\circ}$ consistent comparison among all of the company EBITDAs.

Different binks and firms may have different views on whether other income should or should not be included in EBITDA. Even different industry groups within the same firm have been found to have different views on this topic. As a good analyst, it is important to come up with one consistent defensible view, and stick to it.

Let's assume in our car example the other income will be part of EBITDA.

| Car Co. | 1Q 2012 |
| :--- | ---: |
| Revenue | $500,000.0$ |
| COGS | $125,000.0$ |
| Gross Profit | $375,000.0$ |
| \% Gross Profit Margin | $75 \%$ |
|  | (Continued) |


| Operating Expenses |  |
| :--- | ---: |
| SG\&A | $77,500.0$ |
| Advertising | $7,500.0$ |
| R\&D | $5,000.0$ |
| Total Operating Expenses | $90,000.0$ |
| Other Income | $1,000.0$ |
| EBITDA | $\mathbf{2 8 6 , 0 0 0 . 0}$ |
| EBITDA Margin | $57 \%$ |

Notice we have also calculated EBITDA margin, which is defined as EBITDA / Revenue.

## DEPRECIATION AND AMORTIZATION

Depreciation is the accounting for the aging and depletion of fixed assets over a period of time. Amortization is the accounting for the cost basis reduction of intangible assets (intellectua! property such as patents, copyrights, and trademarks, for examplel over their useful life. It is important to note that not all intangible assets are subject to amortization. We will discuss depreciation and amortization (D\&A) in Chapter 3.

## EBIT

Similar to EBITDA, earnings before interest and taxes (EBIT) is also utilized in valuation. EBIT is EBITDA - Depreciation and Amortization. So let's assume the example car company has $\$ 8,000$ in $\mathrm{D} \& \mathrm{~A}$ each quarter. So:

| Car Co. | 1Q 2012 |
| :--- | ---: |
| EBITDA | $286,000.0$ |
| EBITDA Margin | $57 \%$ |
| D\&A | $8,000.0$ |
| EBIT | $278,000.0$ |
| EBIT Margin | $56 \%$ |

Notice we have also calculated EBIT margin, which is defined as EBIT divided by revenue.

## INTEREST

Interest is composed of interest expense and interest income. Interest expense is the cost incurred on debt that the company has borrowed. Interest income is commonly the income received from cash held in savings accounts, certificates of deposits, and other investments.

Let's assume the car company had $\$ 1 \mathrm{MM}$ in loans and incurs 10 percent of interest per year on those loans. So the car company has $\$ 100,000$ in interest expense per year, or $\$ 25,000$ per quarter. We can also assume that the company has $\$ 50,000$ of cash and generated 1 percent of interest income on that cash per year ( $\$ 500$ ), or $\$ 125$ per quarter.

Often, the interest expense is netted against the interest income as net interest expense.

## EBT

Earnings before taxes (EBT) can be defined as 5 BIT - Net Interest.

| Car Co. | $1 Q 2012$ |
| :--- | ---: |
| EBIT | 278,0000 |
| EBIT Margin | $56 \%$ |
| Interest Expense | $25,000.0$ |
| Interest Income | 125.0 |
| Net Interest Expense | $24,875.0$ |
| EBT | $253,125.0$ |
| EBT Margin | $51 \%$ |

Notice we have also calculated EBT margin, which is defined as EBT divided by revenue.

## TAXES

Taxes are the financial charges imposed by the government on the company's operations. Taxes are imposed on earnings before taxes as defined previously. In the car example, we can assume the tax rate is 35 percent.

## Net Income

Net income is defined as EBT - Taxes. The complete income statement follows.

| Car Co. | 2012 |
| :--- | ---: |
| Revenue | $500,000.0$ |
| COGS | $125,000.0$ |
| Gross Profit | $375,000.0$ |
| \% Gross Profit Margin | $75 \%$ |
| Operating Expenses |  |
| SG\&A | $77,500.0$ |
| Advertising | $7,500.0$ |
| R\&D | $5,000.0$ |
| Total Operating Expenses | $90,000.0$ |
| Other Income | $1,000.0$ |
| EBITDA | $286,000.0$ |
| EBITDA Margin | $57 \%$ |
| D\&A | 8,0000 |
| EBIT | $278,003.0$ |
| EBIT Margin | $25,000.0$ |
| Interest Expense | 125.0 |
| Interest Income | $24,875.0$ |
| Net Interest Expense | $253,125.0$ |
| EBT | $51 \%$ |
| EBT Margin | $88,593.75$ |
| Tax | $35 \%$ |
| Tax Rate (\%) | $164,531.25$ |
| Net Income |  |

## NON-RECURRING AND EXTRAORDINARY ITEMS

Non-recurring and extraordinary items or events are expenses or incomes that are either one-time or not pertaining to everyday core operations. Gains or losses on sales of assets, or from business closures, are examples of nonrecurring events. Such non-recurring or extraordinary events can be scattered about in a generally accepted accounting principles (GAAP) income statement,
and so it is the job of a good analyst to identify these items and move them to the bottom of the income statement in order to have EBITDA, EBIT, and net income line items that represent every day, continuous operations. We call this "clean" EBITDA, EBIT, and net income. However, we do not want to eliminate those non-recurring or extraordinary items completely, so we move them to this section. From here on out, we will refer to both "non-recurring" and "extraordinary" items simply as "non-recurring items" to simplify. We will see how this is dealt with particularly with Walmart later in this chapter.

## DISTRIBUTIONS

Distributions are broadly defined as payments to equity holders. These payments can be in the form of dividends or non-controlling interest payments, to name the major two.

Non-controlling interests is the portion of the cempany or the company's subsidiary that is owned by another outside persen or entity. If another entity (Entity A) owns a non-controlling interesi in the company (Entity B), Entity B must distribute a portion of Entity B's earnings to Entity A. (We will discuss non-controlling interests in more devail in Chapter 5.)

## Net Income (as Reported)

Because we have recommended moving some non-recurring line items into a separate section, the net income listed prior is effectively an adjusted net-income, which is thost useful for analysis, valuation, and comparison. However, it is importaht still to represent a complete net income with all adjustments incluted to match the original given net income. So, it is recommended to have a second net income line defined as: Net income -non-recurring events - distributions, as a "sanity check."

## SHARES

A company's shares outstanding reported on the income statement can be reported as basic or diluted. The basic share count is a count of the number of shares outstanding in the market. The diluted share count is the number of shares outstanding in the market plus any shares that would be considered outstanding today if all option and warrant holders that are in-the-money decided to exercise on their securities. The diluted share count is best thought of as a "What if?" scenario. If all the option and warrant holders who could exercise would, how many shares would be outstanding now?

## Earnings per Share (EPS)

Earnings per share (EPS) is defined as the net income divided by the number of shares outstanding. A company typically reports a basic EPS and a diluted EPS, divided by basic shares or diluted shares, respectively. It is important to note that each company may have a different definition on what exactly to include in net income when calculating EPS. In other words, is net income before or after non-controlling interests used? Or before or after dividends? For investors, it is common to use net income before dividends have been paid but after non-controlling interest investors have been paid. However, we recommend backing into historically the company's EPS to identify the exact formula they are using. We will illustrate this process with Walmart next.

Basic EPS = Net Income / Basic Shares

Diluted EPS = Net Income / Diluted Sheres

## WALMART'S INCOME STATEMENT

There are several ways to obtain a pubic company's financial information. We would first recommend going to tije company's web site and locating the "Investor Relations" section. Walnnart has a very comprehensive site with an Investor Relations section.

The "Annual Reports" section shown in Figure 1.1 on the left side takes us to their most recent financials. You can also go to the U.S. Securities and Exchange Commission (SEC) web site (www.sec.gov), where all public company filings are published, and search for Walmart's specific filings.

Both the antulal report and the company's $10-\mathrm{K}$ should have a section containing financial statements. We will use Walmart's 2012 annual report. You will notice in Figure 1.2, there is the Web version and the PDF version of the 2012 annual report. It is your choice which to use, but I would recommend the PDF so you can download a version on your desktop.

Note that by the time this book is published, Walmart may have changed their web site. If so, you can download a copy of the 2012 Walmart annual report on the companion web site associated with this book, or you can simply rely on the exhibits and examples throughout this book.

If you have downloaded the correct document, scroll down to locate the income statement. Make sure you have identified the company's complete income statement and not their "financial summary." These are easy to confuse. The financial summary does contain income statement information, but it is not as detailed as the actual income statement. The


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## Investors



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FIGURE 1.1 Walmart Investor Relations Web Site


FIGURE 1.2 Walmart Annual Reports


FIGURE 1.3 Walmart 5-Year Financial Summary
financial summary als typically contains a longer period (five or 10 years) of historicals, whereas the more detailed income statement typically contains only two or three years. Figure 1.3 is Walmart's financial summary section, taken from page 17 of the company's annual report. You can easily see that it does not contain all the necessary line items such as costs and expenses to properly create a model. You will also notice that it is labeled as " 5 -Year Financial Summary."

If you continue to scroll through the company's annual report, you will find the complete income statement on page 32 . You will also notice that it is properly labeled as "Consolidated Statement of Income." We will use the income statement found in Figure 1.4 to analyze Walmart's historical financial position. It is standard to have three years of financials in a company model, so we will create a model from years 2010 to 2012.

| (Amounts in milians except per share data) | Fiscal Years Ended January 31. |  |  |
| :---: | :---: | :---: | :---: |
|  | 2012 | 2011 | 2010 |
| Revenues: |  |  |  |
| Net sales | \$443,854 | \$418,952 | \$405,132 |
| Membership and other income | 3,096 | 2,897 | 2,953 |
|  | 446,950 | 421,849 | 408,085 |
| Costs and expenses: |  |  |  |
| Cost of sales | 335,127 | 314,946 | 304,106 |
| Operating, selling, general and administrative expenses | 85,265 | 81,361 | 79,977 |
| Operating income | 26,558 | 25,542 | 24,002 |
| Interest: |  |  |  |
| Debt | 2,034 | 1,928 | 1,787 |
| Capital leases | 288 | 277 | 278 |
| Interest income | (162) | (201) | (181) |
| Interest, net | 2,160 | 2,004 | 1,884 |
| Income from continuing operations before income taxes | 24,398 | 23,538 | 22,118 |
| Provision for income taxes: |  |  |  |
| Current | 6,74? | 6,703 | 7,643 |
| Deferred | 1,202 | 876 | (487) |
|  | 7,944 | 7,579 | 7,156 |
| Income from continuing operations | 16,454 | 15,959 | 14,962 |
| Income (loss) from discontinued operations, net of tax | Y (67) | 1,034 | (79) |
| Consolidated net income | 16,387 | 16,993 | 14,883 |
| Less consolidated net income attributable to noncontrolling interest | (688) | (604) | (513) |
| Consolidated net income attributable to Walmart | \$ 15,699 | \$ 16,389 | \$ 14,370 |
| Basic net income per common share: |  |  |  |
| Basic income per common share from continuing operations attribut. 'le us) Walmart | \$ 4.56 | \$ 4.20 | \$ 3.74 |
| Basic incorre (loss) per common share from discontinued operatio is ctiluutable to Walmart | (0.02) | 0.28 | (0.02) |
| Basic net income per common share attributable to Walmart | \$ 4.54 | \$ 4.48 | \$ 3.72 |
| Diluted net income per common share: |  |  |  |
| Diluted income per common share from continuing noerations attributable to Walmart | \$ 4.54 | \$ 4.18 | 53.73 |
| Diluted income (loss) per common share from disconntinued operations attributable to Walmart | (0.02) | 0.29 | (0.02) |
| Diluted net income per common shar a tributable to Walmart | \$ 4.52 | \$ 4.47 | \$ 3.71 |
| Weighted-average common shares c - - tanding: |  |  |  |
| Basic | 3,460 | 3,656 | 3,866 |
| Diluted | 3,474 | 3,670 | 3.877 |
| Dividends declared per commion share | \$ 1.46 | \$ 1.21 | \$ 1.09 |

See accomparging notes.
FIGURE 1.4 Walmart Income Statement

## Revenue

When looking at the income statement in Figure 1.4, you want to first identify all the major line items as referenced earlier in this chapter, beginning with sales. We can see that Walmart has two lines of Revenues: "Net sales" and "Membership and other income." We will list both separately.

Now is a good time to open up the model template titled "NYSF-Walmart-Template.xls." Notice the first six "tabs" each represent a financial schedule we will build to properly analyze the business. A well-built model contains at least these six major statements:

1. Income statement
2. Cash flow statement
3. Balance sheet
4. Depreciation schedule
5. Working capital schedule
6. Debt schedule

For this chapter, we will focus on the Income statement tab. In this tab, we can enter the three years of each revenue stream, as shown in Figure 1.4. We will simply "hardcode" or type the numbers directiy into the model as represented in the annual report.

Before doing so, it is important to mention the elist two important rules of modeling etiquette:

1. All hardcoded numbers and assumnion drivers should be entered in blue font.
2. All formulas should be entered in black font.

When we mention hardcoded numbers, we mean numbers that are typed directly into a cell (that is, not links or formulas). All other formulas in the model are dependent on hardicodes, so should remain black. So, for example, the historical numbers we will now enter are hardcoded. These should be colored blue. But, the formu that are simply summing hardcoded numbers should be in black font, as cipse are formulas. This is a standard on the Street and makes a model easier to analyze. It is important to be able to quickly zero in on the numbers and assumptions that drive the model projections (the blue numbers).

So, in Row 7, marked "Net Sales," we can type in 405,132; 418,952; and 443,854 for 2010, 2011, and 2012, or cells D7, E7, and F7, respectively. Remember to color the font of these blue, as they are hard codes. Later, we will look to the company's historical trends as a clue to estimating projections. So, let's calculate the historical growth of the company's net sales. The formula for growth in a current year is:

$$
\text { Current Year / Previous Year - } 1
$$

So we can calculate the 2011 net sales growth by entering the following into Cell E8:

Calculating 2011 Net Sales Growth (Cell E8)

| Excel Key Strokes | Description |
| :--- | :--- |
| type"=" | Enters into "formula" mode |
| select Cell E7 | 2011 Net Sales |
| type"/" | Divides |
| select Cell D7 | 2010 Net Sales |
| type"-1" | Subtracts 1 |
| type"Enter" | End |
| Formula Result | =E7/D7-1 |

This should give you a 3.4 percent net sales growth in 2011. This process can be repeated for the net sales in 2012, or you can simply cut and paste the 2012 formula and copy it to the right. There are several ways to copy formulas to the right:

1. Click and drag the 2011 formula over to 2012 . With the mouse, you can select the bottom right corner of Cell E8, and while holding down the left mouse button, you can drag the formula over to Cell F8.
2. Select the 2011 Net Sales Growth iii Cell E8. Select "Copy" from the menu bar (or hit "Ctrl" + "C"). Then select the 2012 Net Sales Growth (Cell F8), and select "Paste" from the menu bar (or hit "Ctrl" + "V").
3. Preferred method:
a. Highlight both the $201 \frac{1}{1}$ Net Sales Growth in Cell E8 and the empty 2012 Net Sales Gro th in Cell F8. This can either be done two ways:
i. With the mouse by selecting Cell E8, making sure to select the center of the ceil not the bottom right corner, and while holding down the left inouse button continue to move the mouse to the right, or;
ii. With the keyboard: by selecting Cell E8, then holding down the "Shift" key while tapping the right arrow until the desired cells are selected.
b. Hit "Ctrl" + "R," which stands for "copy right."

## Modeling Tip

We strongly recommend you use keyboard hotkeys (such as "Ctrl" + "R") as often as possible. The more comfortable you become with using the keyboard as opposed to the mouse, the more efficient a modeler you will become. (Please see Appendix 3 for a list of Excel hotkeys.)

## TABLE 1.1 Walmart Historical Net Sales

Consolidated Income Statements (in U.S.\$ millions except per share amounts)

|  | Actuals |  |  |
| :--- | ---: | :---: | :---: |
| Period Ending January 31 | 2010A | 2011A | 2012A |
| Revenue |  |  |  |
| Net sales | $405,132.0$ | $418,952.0$ | $443,854.0$ |
| $\%$ Growth |  | $3.4 \%$ | $5.9 \%$ |

Note there is also a hotkey called "Ctrl" + "D," which stands for Copy Down. Unfortunately there is no Copy Left or Copy Up.

See Table 1.1.
We can now continue by entering the "Membership ana Other Income" numbers, and calculating the respective growth as we had done with the net sales.

We can then total the two sales line items into the total revenue line in Row 11. (See Table 1.2.)

Calculating 2010 Total Revenue (Cell D11)

| Excel Key Strokes | Description |
| :--- | :--- |
| type " $=$ " | Enters into "formula" mode |
| select Cell D7 | 2-10 Net Sales |
| type " + " | Adds |
| select Cell D9 | 2010 Membership and Other Income |
| type "Enter" | End |
| Formula result | $=D 7+$ D9 |

TABLE 1.2 Walmart Historical Total Revenue
Consolidated Income Statements (in U.S.\$ millions except per share amounts)

|  | Actuals |  |  |
| :--- | :---: | :---: | :---: |
| Period Ending January 31 | 2010A | 2011 A | 2012A |
| Revenue |  |  |  |
| Net sales | $405,132.0$ | $418,952.0$ | $443,854.0$ |
| \% Growth |  | $3.4 \%$ | $5.9 \%$ |
| Membership and other income | $2,953.0$ | $2,897.0$ | $3,096.0$ |
| \% Growth |  | $-1.9 \%$ | $6.9 \%$ |
| Total revenue | $408,085.0$ | $421,849.0$ | $446,950.0$ |
| Y/Y revenue growth (\%) |  | $3.4 \%$ | $6.0 \%$ |

This will give us $\$ 408,085.0$ in total revenue for Walmart in 2010. We can now calculate total revenue growth using the same growth formulas as demonstrated prior. We can also copy these formulas to the right through 2012 using one of the previous copy methods. (See Table 1.2.)

## Getting to EBITDA

Below the revenue section we see "Cost of Sales" and "Operating, Selling, General, and Administrative Expenses." When referencing the categories earlier in this chapter, we see "Cost of Sales" as category 2, and "Operating Expenses" as category 3, which will directly refer to "Cost of Sales" and "Operating, Selling, General, and Administrative Expenses," respectively, from the above income statement. Ideally, there would be a more detailed breakout of the costs, and if there was, I would recommenalisting each cost line item in an operating expense section, much like what we had done with revenue. It is worth doing a quick word search on "expense" or "operating expense" in the annual report to see if there is a motailed table listing the individual expenses.

## Digging up Depreciation

When identifying all expenses on an mincome statement, it is important to also locate the depreciation expense Companies that have depreciating assets would generally record that depreciation as an expense to reduce taxes. So, if a company has depreciation, it should be represented on the income statement. However, not every company lists depreciation as a separate line item. A good analyst needs to do some more hunting to locate depreciation. Walmart certainly epreciates its assets. If you are unsure if the company you are analyzing deopeciates assets you should research the company's assets. An easy way to begin is by performing a word search for "depreciation" on the company's annual report, or you can go to the cash flow statement to see if a depreciation line item exists. Depreciation is located in several places in the company's annual report. In Figure 1.5 we have used the example from page 52 of the company's annual report. This appears to be a financial breakout of the company's operating business units.

As we are building a model to represent the consolidated business, we want total depreciation for the whole business. In Figure 1.5 we can see depreciation and amortization for the consolidated business is $\$ 8,130$; $\$ 7,641$; and $\$ 7,157$ for 2012, 2011, and 2010, respectively. It is also good to know that page 35 of the annual report, the cash flow statement shows depreciation of the exact same amount. This is a good cross-check. However, it is important to note there are advanced accounting rules that can

| (Amownts in milinons) | Walmart U.S. | Walmart Intemational | Sams Club | $\begin{aligned} & \text { Other } \\ & \text { Unallocated } \end{aligned}$ | Consolidated |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal Year Ended January 31, 2012 |  |  |  |  |  |
| Net sales | \$264,186 | \$125,873 | \$53,795 | \$ | \$443,854 |
| Operating income (loss) | 20,367 | 6,214 | 1,865 | $(1,888)$ | 26,558 |
| Interest expense, net |  |  |  |  | $(2,160)$ |
| Income from continuing operations before income taxes |  |  |  |  | \$ 24,398 |
| Total assets of continuing operations | \$ 93,050 | \$ 81,364 | \$12,823 | \$ 6,080 | \$193,317 |
| Depreciation and amortization | 4,794 | 2,470 | 611 | 255 | 8,130 |
| Capital expenditures | 6,571 | 5,275 | 842 | 822 | 13,510 |
| Fiscal Year Ended January 31, 2011 |  |  |  |  |  |
| Net sales | \$ 260,261 | \$ 109,232 | \$49,459 | \$ | \$ 418,952 |
| Operating income (loss) | 19,919 | 5,606 | 1,711 | $(1,694)$ | 25,542 |
| Interest expense, net |  |  |  |  | (2,004) |
| Income from continuing operations before income taxes |  |  |  |  | \$ 23,538 |
| Total assets of continuing operations | \$ 89,725 | \$ 72.021 | \$ 12,531 | \$ 6.255 | \$ 180,532 |
| Depreciation and amortization | 4,619 | 2.184 | 594 | 244 | 7,641 |
| Capital expenditures | 7328 | 3,994 | 711 | 666 | 12,699 |
| Fiscal Year Ended January 31, 2010 |  |  |  |  |  |
| Net sales | \$ 259,919 | \$ 97,407 | \$ 47,806 |  | \$ 405,132 |
| Operating income (loss) | 19,314 | 4,901 |  | (1,728) | 24,002 |
| Interest expense, net |  |  |  |  | (1,884) |
| Income from continuing operations before income taxes |  |  |  |  | \$ 22,118 |
| Total assets of continuing operations | \$ 84,238 | \$ 66,515 | \$ 12.050 | \$ 7,464 | \$ 170,267 |
| Depreciation and amortization | 4,352 | 19, 2 | 558 | 268 | 7,157 |
| Capital expenditures | 6,618 | 3,8.2 | 793 | 941 | 12,184 |

FIGURE 1.5 Walmart Operations by Segment
cause differences between depreciation shown on the cash flow statement and in other sections of the company financials.

Once we have identified depreciation, we have to determine where that depreciation is in the inome statement. We have proven depreciation exists, and we assume it must be somewhere in the income statement, although not directly shown. Be cereful not to simply add the depreciation expense to the income statement. The depreciation amounts we have found previously are most likely buried in one of the expense items we have already identified. But how do we know which expense line item contains depreciation? Unfortunately, in many cases, it may not be easy to tell. A word search on "depreciation" may reveal a note describing where that item is expensed on the income statement. In Walmart's case, it does not. Quite often depreciation is a part of cost of goods sold or sales, general, and administrative expenses, or spread out between the two. It is also often that one cannot identify exactly where depreciation is buried. It should be comforting to know, however, that whether we end up extracting the depreciation expense from cost of goods sold; sales, general, and administrative expenses; or both, it will not affect our EBITDA, which is most crucial for our valuation. So in this example let us assume depreciation is a component of sales, general, and administrative expenses. Another clue is a paragraph on page 20 of
the annual report that identifies depreciation within the operating expenses section. Although a helpful clue, this is no proof. Page 20 of Walmart's 2012 annual report notes:

## Operating Expenses

We leveraged operating expenses in fiscal 2012 and 2011. In fiscal 2012, our operating expenses increased $4.8 \%$ compared to fiscal 2011, while net sales increased 5.9\% in fiscal 2012 compared to fiscal 2011. Operating expenses grew at a slower rate than net sales due to our continued focus on expense management. Our Global eCommerce initiatives contributed to the majority of the increase in operating expenses, as we continue to inoest in our e-commerce platforms. Depreciation expense increased year-overyear based on our financial system investments with the remainder of the increase being driven by multiple items, none of which were individually significant. In fiscal 2011, ou. op erating expenses increased 1.7\% compared to fiscal 2010, while net sales increased $3.4 \%$ during fiscal 2011 compared to fiscal 2010. Operating expenses grew at a slower rate thar net sales in fiscal 2011 due to improved labor productivity ni organizational changes made at the end of fiscal 2010 desimed to strengthen and streamline our operations, as well as reduction in certain incentive plan expenses.

So assuming depreciation was a component of sales, general, and administrative expenses, we will reduce the amount of those expenses by the value of depieciacion. So, in 2012, sales, general, and administrative expenses will be reduced from $\$ 85,265$ to $\$ 77,135(\$ 85,265-\$ 8,130)$. We will make similar adjustments in 2011 and 2010.

We now have enough information to lay out a historical income statement for three years down to EBITDA.

## Cost of Goods Sold

Walmart reports cost of goods sold (COGS) as "Cost of Sales," and records 304,$106 ; 314,946$; and 335,127 , for 2010, 2011, and 2012, respectively. Let us type those numbers into Cells D14, E14, and F14 now.

Notice there is a metric, "COGS as a \% of Revenue," in row 15. We will discuss later how calculating an expense as a percentage of revenue may or may not be a good indicator of future performance. To best prepare us for
that discussion, let's calculate this metric now. The 2010 COGS as a percentage of revenue will be:
Calculating 2010 Cost of Goods Sold (Cell D15)

| Excel Key Strokes | Description |
| :--- | :--- |
| type "=" | Enters into "formula" mode |
| select Cell D14 | 2010 COGS |
| type "/" | Divides |
| select Cell D11 | 2010 Total Revenue |
| type "Enter" | End |
| Formula Result | =D14/D11 |

This gives us 74.5 percent in 2010. We can now copt this formula to the right.

## Gross Profit

Gross profit is revenue less cost of goods sold
Calculating 2010 Gross Profit (Cell D1』)

| Excel Key Strokes | Descripion |
| :--- | :--- |
| type"=" | Entersinto "formula" mode |
| select Cell D11 | 2010 Total Revenue |
| type"-" | Subtracts |
| select Cell D14 | 2010 COGS |
| Type "Enter" | End |
| Formula Resuis | $=D 11-D 14$ |

We can calculate the gross profit margin as explained earlier in this chapter.

Calculating 2010 Gross Profit Margin (Cell D17)

| Excel Key Strokes | Description |
| :--- | :--- |
| type "=" | Enters into "formula" mode |
| select Cell D16 | 2010 Gross Profit |
| type "/" | Divides |
| select Cell D11 | 2010 Total Revenue |
| type "Enter" | End |
| Formula Result | $=D 16 / D 11$ |

## TABLE 1.3 Walmart Historical Gross Profit

Consolidated Income Statements (in U.S.\$ millions except per share amounts)

|  | Actuals |  |  |
| :--- | :---: | :---: | :---: |
| Period Ending January 31 | 2010A | 2011 A | 2012A |

## Revenue

| Net sales | $405,132.0$ | $418,952.0$ | $443,854.0$ |
| :--- | :---: | :---: | :---: |
| \% Growth |  | $3.4 \%$ | $5.9 \%$ |
| Membership and other income | $2,953.0$ | $2,897.0$ | $3,096.0$ |
| \% Growth |  | $-1.9 \%$ | $6.9 \%$ |
| Total revenue | $408,085.0$ | $421,849.0$ | $446,950.0$ |
| Y/Y revenue growth (\%) |  | $3.4 \%$ | $6.0 \%$ |

Cost of goods sold
Cost of goods sold
$304,106.0 \quad 314,945.0 \quad 335,127.0$
COGS as a \% of revenue
Gross profit

| $74.5 \%$ | $75.0 \%$ |
| :---: | :---: |
| $103,979.0$ | $111,823.0$ |

Gross profit margin (\%) $25.5 \% \quad 25.3 \% \quad 25.0 \%$

We can copy both formulas to the right and move on to Operating Expenses (as shown in Table 1.3).

## Selling, General, and Gúminisistrative Expenses

Walmart definto selling, general, and administrative expenses (SG\&A) as "operating, selling, general and administrative expenses." Given the previous discussion, we have assumed the depreciation expense is contained within the SG\&A. So in row 19 , we should hardcode the operating, selling, general and administrative expenses less the depreciation expense; in 2010, we should have 79977 - 7157. We can continue to hardcode in the operating, selling, general and administrative expenses less the depreciation expense in 2011 and 2012. We can then calculate these expenses as a percentage of revenue as we had done with the Cost of Goods Sold. See Table 1.4 as a guide.

## Other Income

We note Walmart does not have any other income line items separated out.

## EBITDA

We can now calculate EBITDA as gross profit less the operating expenses.
Calculating 2010 EBITDA (Cell D21)

| Excel Key Strokes | Description |
| :--- | :--- |
| type"=" | Enters into "formula" mode |
| select Cell D16 | 2010 Gross Profit |
| type"-" | Subtracts |
| select Cell D19 | 2010 Operating Expenses |
| type "Enter" | End |
| Formula Result | $=D 16-D 19$ |

We can calculate the EBITDA margin as explained ealier in this chapter.

## Calculating 2010 EBITDA Margin (Cell D22)

| Excel Key Strokes | Description |
| :--- | :--- |
| type "=" | Enters into "formnia" mode |
| select Cell D21 | 2010 EBITD |
| type "/" | Divides |
| select Cell D11 | 2010 Toral Revenue |
| type "Enter" | End |
| Formula Result | $-1521 / \mathrm{D} 11$ |

We can copy both iprmulas to the right. (See Table 1.4.)

## Beyond EBITDA

Once we have EBITDA, we can continue identifying the rest of Walmart's income statement line items.

## Depreciation and Amortization

We have already identified the depreciation as $7,157,7,641$, and 8,130 for 2010, 2011, and 2012, respectively. We can hardcode these into Row 23.

## EBIT

EBIT is EBITDA less depreciation. We can also calculate the EBIT margin as we have done previously.

TABLE 1.4 Walmart Historical EBITDA
Consolidated Income Statements (in U.S.\$ millions except per share amounts)

| Period Ending January 31 | Actuals |  |  |
| :---: | :---: | :---: | :---: |
|  | 2010A | 2011A | 2012A |
| Revenue |  |  |  |
| Net sales | 405,132.0 | 418,952.0 | 443,854.0 |
| \% Growth |  | 3.4\% | 5.9\% |
| Membership and other income | 2,953.0 | 2,897.0 | 3,096.0 |
| \% Growth |  | -1.9\% | 6.9\% |
| Total revenue | 408,085.0 | 421,849.0 | 446,950.0 |
| Y/Y revenue growth (\%) |  |  | 6.0\% |
| Cost of goods sold |  |  |  |
| Cost of goods sold | 304,106.0 | 314,9460 | 335,127.0 |
| COGS as a \% of revenue | 74.5\% | 74.7\% | 75.0\% |
| Gross profit | 103,979.0 | 106,903.0 | 111,823.0 |
| Gross profit margin (\%) | 25.5\% | 25.3\% | 25.0\% |
| Operating expenses |  |  |  |
| Selling, general and administrative | 1320.0 | 73,720.0 | 77,135.0 |
| $S G * A$ as a \% of revenue | 17.8\% | 17.5\% | 17.3\% |
| EBITDA | 31,159.0 | 33,183.0 | 34,688.0 |
| EBITDA margin (\%) | 7.6\% | 7.9\% | 7.8\% |

## Interest

Walmart has thre lines of interest: Debt, which in this case is interest expense; Capita leases, which is the interest related to their capital leases; and Interest income. Note that interest income, although in parenthesis, is actually increasing EBIT. This is an example of how one needs to make sure the income statement line items are flowing properly. We will, at the end of the income statement, make sure we can match the net income we calculate to Walmart's net income to insure all is flowing properly. Hardcode these line items into the model and calculate the total interest expense by summing all three interest line items. Note the hotkey "Alt" + "=" is a quick way to automatically sum line items. Refer to Table 1.5 as a guide.

## EBT

Remember EBIT - Interest $=$ EBT, and EBT margin is EBT / Total Revenue. Calculate EBT and refer to Table 1.5 as a guide.

## Taxes

Take note of the total number of taxes on Walmart's income statement. Walmart has defined two items of taxes, "Current" and "Deferred." We will talk about deferred taxes in Chapter 3. For taxes, we can just hardcode the totals into Row 33. Refer to Table 1.5.

The tax rate is calculated as taxes divided by EBT.
Calculating 2010 Tax Rate (Cell D34)

| Excel Key Strokes | Description |
| :--- | :--- |
| type "=" | Enters into "formula" mode |
| select Cell D33 | 2010 Income Tax Expense |
| type "/" | Divides |
| select Cell D31 | 2010 EBT |
| type "Enter" | End |
| Formula Result | =D33/D31 |

We can now copy this formula to the right.

## Net Income

Remember EBT - Taxes $=$ Net Incone. Calculate this formula and copy to the right. This number should match the "Income from continuing operations" from Walmart's incond statement. (See Figure 1.4.)

## Non-Recurring Events

Walmart has one en-recurring event line item: income (loss) from discontinued operations. This represents any gains or losses resulting from Walmart closing or discontinuing a portion of its business. Page 49 of Walmart's annual report explains the specific situation as follows:

## Discontinued Operations

At January 31, 2010, the Company had an unrecognized tax benefit of $\$ 1.7$ billion related to an ordinary worthless stock deduction from the fiscal 2007 disposition of its German operations. During the fourth quarter of fiscal 2011, this matter was effectively settled with the Internal Revenue Service, which resulted in the reclassification of the deduction as an Ordinary loss, a capital loss that the Company has fully offset with a Valuation allowance,

TABLE 1.5 Walmart Historical Adjusted Net Income
Consolidated Income Statements (in U.S.\$ millions except per share amounts)

| Period Ending January 31 | Actuals |  |  |
| :---: | :---: | :---: | :---: |
|  | 2010A | 2011A | 2012A |
| Revenue |  |  |  |
| Net sales | 405,132.0 | 418,952.0 | 443,854.0 |
| \% Growth |  | 3.4\% | 5.9\% |
| Membership and other income | 2,953.0 | 2,897.0 | 3,096.0 |
| \% Growth |  | -1.9\% | 6.9\% |
| Total revenue | 408,085.0 | 421,849.0 | 446,950.0 |
| Y/Y revenue growth (\%) |  | 3.4\% | 6.0\% |
| Cost of goods sold |  |  |  |
| Cost of goods sold | 304,106.0 | 314,946.9 | 335,127.0 |
| COGS as a \% of revenue | 74.5\% | 74.7\% | 75.0\% |
| Gross profit | 103,979.0 | 166,903.0 | 111,823.0 |
| Gross profit margin (\%) | 25.5 | 25.3\% | 25.0\% |
| Operating expenses |  |  |  |
| Selling, general and administrative | 72820.0 | 73,720.0 | 77,135.0 |
| SG*A as a \% of revenue | 17.8\% | 17.5\% | 17.3\% |
| EBITDA | 31,159.0 | 33,183.0 | 34,688.0 |
| EBITDA margin (\%) | 7.6\% | 7.9\% | 7.8\% |
| Depreciation and amorization | 7,157.0 | 7,641.0 | 8,130.0 |
| EBIT | 24,002.0 | 25,542.0 | 26,558.0 |
| EBIT margin (\%) | 5.9\% | 6.1\% | 5.9\% |

## Interest

| Interest expense (debt) | $1,787.0$ | $1,928.0$ | $2,034.0$ |
| :--- | :---: | :---: | :---: |
| Interest expense (capital leases) | 278.0 | 277.0 | 288.0 |
| Interest income | $(181.0)$ | $(201.0)$ | $(162.0)$ |
| Net interest expense | $\mathbf{1 , 8 8 4 . 0}$ | $\mathbf{2 , 0 0 4 . 0}$ | $\mathbf{2 , 1 6 0 . 0}$ |
| EBT | $\mathbf{2 2 , 1 1 8 . 0}$ | $\mathbf{2 3 , 5 3 8 . 0}$ | $\mathbf{2 4 , 3 9 8 . 0}$ |
| EBT margin (\%) | $5.4 \%$ | $5.6 \%$ | $5.5 \%$ |
| Income tax expense | $7,156.0$ | $7,579.0$ | $7,944.0$ |
| Tax rate (\%) | $32.4 \%$ | $32.2 \%$ | $32.6 \%$ |
| Net income (adjusted) | $\mathbf{1 4 , 9 6 2 . 0}$ | $\mathbf{1 5 , 9 5 9 . 0}$ | $\mathbf{1 6 , 4 5 4 . 0}$ |

and a reduction in the accumulated but undistributed earnings of an international subsidiary. In connection with this settlement, the Company recorded a $\$ 1.0$ billion tax benefit in discontinued operations in the Company's Consolidated Statements of Income (see Note 14) and a reduction of its accrued income tax liability in the Company's Consolidated Balance Sheet at January 31, 2011. In addition, during fiscal 2012, tax and related interest expense of $\$ 67$ million was recorded to Discontinued operations related to audit adjustments and amended returns from this settlement for U.S. federal and state income tax purposes.

So in the non-recurring events section, we can hardcode the $-79,1034$, and -67 into 2010, 2011, and 2012, respectively. We can keep the other non-recurring event line items as 0 , and calculate the total.

## Net Income (after Non-Recurring Events)

We can now calculate the net income (after mon-recurring events) as net income plus non-recurring events.

Again, be careful of how these non-recurring items should be flowing into the net income. The -67 of non reatring events in 2012, for example, is actually reducing our net income 1umber, so these line items should effectively be adding into our net inicome. Some analysts prefer to reverse the logic by flipping the signs from negative to positive, and continuing to subtract the total non-recurring events. There is no absolute correct way, as long as the total net income at the bottom of the income statement matches the annual report. (Seê Jable 1.6)

## Distributions

Walmart's line item "Consolidated net income attributable to non-controlling interests" is effectively non-controlling interest. We can hardcode this into Row 42.

Non-controlling interest is typically paid out as a percentage of net income, so in order to make our projections we will calculate the metric in Row 43, "Non-controlling interests \% of net income."

Don't overlook typing " $=$ " then a minus sign. We need to reverse the sign of the negative values otherwise we will have a negative percentage. You can now copy this formula to the right.

Calculating 2010 Non-Controlling Interests \% of Net Income (Cell D43)

| Excel Key Strokes | Description |
| :--- | :--- |
| type "=" | Enters into "formula" mode |
| type "-" | Reverses the sign of the numerator to make it positive |
| select Cell D42 | 2010 Non-Controlling Interests |
| type "/" | Divides |
| select Cell D40 | 2010 Net Income |
| type "Enter" | End |
| Formula Result | $=-D 42 / D 40$ |

## Net Income (as Reported)

We can now calculate the net income (as reported) as net income (after nonrecurring events) plus non-controlling interests.

Again, be careful of how these non-controlling riterests should be flowing into net income. (See Table 1.6.)

## Shares and EPS

We can hardcode in the basic and duped shares as Walmart has reported into Rows 49 and 50 before calculating EPS. We can then calculate the basic EPS by dividing the net income tas reported) by the number of basic shares outstanding, and the diluted $\operatorname{Hi}^{2} S$ by dividing the net income (as reported) by the number of diluted shards outstanding. The purpose of calculating EPS here is to ensure we have metrics that match what the company reported for accuracy in our analysis. It is, however, common to calculate EPS using our adjusted net incoine depending on the purpose of the analysis.

Calculating 2010 Basic EPS (Cell D46)

| Excel Key Strokes | Description |
| :--- | :--- |
| type "=" | Enters into "formula" mode |
| select Cell D44 | 2010 Net Income (as reported) |
| type "/" | Divides |
| select Cell D49 | 2010 Shares |
| type "Enter" | End |
| Formula Result | =D44/D49 |

We repeat the same process for the diluted EPS, using diluted shares in place of basic shares. (See Table 1.6.)

TABLE 1.6 Walmart Historical Income Statement
Consolidated Income Statements (in U.S.\$ millions except per share amounts)

|  | Actuals |  |  |
| :--- | :---: | :---: | :---: |
| Period Ending January 31 | 2010A | 2011A | 2012A |
| Revenue |  |  |  |
| Net sales | $405,132.0$ | $418,952.0$ | $443,854.0$ |
| \% Growth |  | $3.4 \%$ | $5.9 \%$ |
| Membership and other income | $2,953.0$ | $2,897.0$ | $3,096.0$ |
| \% Growth |  | $-1.9 \%$ | $6.9 \%$ |
| Total revenue | $408,085.0$ | $421,849.0$ | $446,950.0$ |
| Y/Y revenue growth (\%) |  | $3.4 \%$ | $6.0 \%$ |
| Cost of goods sold |  |  |  |
| Cost of goods sold | $304,106.0$ | $314,946.0$ | $335,127.0$ |
| COGS as a \% of revenue | $74.5 \%$ | $74.7 \%$ | $75.0 \%$ |
| Gross profit | $103,979.0$ | $106,903.0$ | $111,823.0$ |
| Gross profit margin (\%) | $255 \%$ | $25.3 \%$ | $25.0 \%$ |

Operating expenses
Selling, general and administrative

SG\&A as a \% of revenue
EBITDA
EBITDA margin (\%) ${ }^{\circ}$
Depreciation and anortization
EBIT
EBIT margin (\%)

$$
\begin{array}{ccc}
72,820.0 & 73,720.0 & 77,135.0 \\
17.8 \% & 17.5 \% & 17.3 \% \\
31,159.0 & 33,183.0 & 34,688.0
\end{array}
$$

| $7.6 \%$ | $7.9 \%$ | $7.8 \%$ |
| ---: | ---: | ---: |
| $7,157.0$ | $7,641.0$ | $8,130.0$ |
| $24,002.0$ | $\mathbf{2 5 , 5 4 2 . 0}$ | $\mathbf{2 6 , 5 5 8 . 0}$ |
| $5.9 \%$ | $6.1 \%$ | $5.9 \%$ |

## Interest

| Interest expense (debt) | $1,787.0$ | $1,928.0$ | $2,034.0$ |
| :--- | :---: | :---: | :---: |
| Interest expense (capital leases) | 278.0 | 277.0 | 288.0 |
| Interest income | $(181.0)$ | $(201.0)$ | $(162.0)$ |
| Net interest expense | $\mathbf{1 , 8 8 4 . 0}$ | $\mathbf{2 , 0 0 4 . 0}$ | $\mathbf{2 , 1 6 0 . 0}$ |
| EBT | $22,118.0$ | $23,538.0$ | $24,398.0$ |
| EBT margin (\%) | $5.4 \%$ | $5.6 \%$ | $5.5 \%$ |
| Income tax expense | $7,156.0$ | $7,579.0$ | $7,944.0$ |
| Tax rate (\%) | $32.4 \%$ | $32.2 \%$ | $32.6 \%$ |

$\left.\begin{array}{lccc}\hline \text { Consolidated Income Statements (in U.S.\$ millions except per share amounts) } \\ \text { Actuals }\end{array}\right)$

## INCOME STATEMENT—MAKING PROJECTIONS

Making projections is no easy task. One needs to spend much time understanding and researching the core business model, how it generates revenue, its cost structure, and beyond to best get a handle on the next years of its performance. Ideally, a Wall Street research analyst will have had years of experience following and keeping close watch on the business, and would have a good handle on its future trends in order to make good projections. That being said, there are methods to make fair generalizations, though broad, but strong enough to use as tools to assess overall company valuation. Remember: A good model is a functional and flexible one, and is one that is designed to easily be adjusted, to grow, and to evolve as we gain
more knowledge and insight into the inner workings of business, therefore slowly honing on a perfect valuation.

## Revenue

Revenue, for example, can be quite difficult to predict. Walmart posted $\$ 446,950$ million dollars in 2012 total revenue, a 6.0 percent increase from 2011. How will we know what revenue will be in 2013? The truth is, it is almost impossible to be 100 percent sure. We will need to make an assumption with the understanding that that assumption will come with a degree of uncertainty, and may therefore change.

So how can you best make rational predictions for 2013? It is important to research and understand the company's basiness model, gathering as much information as you can to make your own best judgment. Revenue, for example, is almost always driven by a product of pricing and volume. So, when thinking aboat projecting revenue, your research should focus on understanding one company's pricing and volume. What initiatives is the company taking to increase its volume in 2013? Is it increasing its advertising? Is it acquiring other businesses or customers? What outside ferces could affect the company's pricing model? Is it increasing its prices? Is it facing tremendous market competition and must lower its prices?

In addition to the research, we recommend the following sources:

1. Investor presentations Try to look for a recent investor presentation on the investor relations section of the company web site. These presentations are typically designed to explain recent and future performance to existing or futire investors of the company's stock. These presentations can contain nigh-level projections.
2. Earnings calls. One can easily find when the next earnings call is on the investor relations section of the web site. At the earnings call, you can listen to the management speak about the company's most recent financial performance. Management also sometimes gives guidance on the company's future performance.
3. Wall Street research. If you can get your hands on an equity research report, written by a Wall Street analyst who has followed the company for several years, that report would contain estimated future performance.
4. Data sources. Yahoo! Finance, Thomson, First Call, and Bloomberg are examples of data sources that contain Wall Street consensus estimates. Yahoo! Finance is a free resource, so, if you do not have access to a paid service, this can serve as a good reference.

These are just several examples of where one can get guidance. We recommend not depending on any one single source of information, but gathering as many sources as you can and cross-checking with your research to make the strongest educated estimates as possible.

For purposes of this analysis, and knowing that the research can take a considerable amount of time, we can take a first-guess assumption and leave the detailed research for once the model is complete. We can, for example, assume that revenue will continue to grow at its historical 6 percent rate into 2013.

We can also go to a data source such as Yahoo! Finance. One can, for example, go to finance.yahoo.com and type "WMT" (the ticker for Walmart) in the "Finance Search" bar. There is a lot of great information here that can be used as a first cut assumption. It is not the best source, but it is a free source, so it is a good starting point. On the left, we can select "Analyst Estimates."

This data is a consensus by several Wall Street anaissis who follow Walmart. (See Figure 1.6.) The second table from the top, entitled "Revenue Est," gives us the consensus revenue. On the far right, we can see the average revenue estimates for 2013 and 2014 are $\$ 472.51 \mathrm{Bn}$ and $\$ 496.24 \mathrm{Bn}$, respectively. It is also important to note the high and low estimates underneath the average.

As a "first cut" we should expect our rojected revenue to be within the high and low range, and near the average. (It does not have to exactly match exactly.) So, our earlier assumption of taking last year's 6.0 percent growth


FIGURE 1.6 Yahoo! Finance WMT Estimates
for $2013(\$ 446,950 \times 1.06)$ will give us $\$ 473,767$-well within the range posted and quite close to the average. So let's use this for now. Continuing the 6.0 percent growth in 2014 will give us $\$ 502,193(\$ 473,767 \times 1.06)$-again, within the range and close to the average for 2014. This method, of course, needs to be adjusted based on all our further research on the company. It is not recommended or safe to make the general assumption that last year's growth will equal this year's or next year's without further research. So we will note that our assumption of taking 6.0 percent is pending further research.

Note that this information changes frequently. If you find this information online yourself it is likely to have changed. If you are building the model as you are reading this book, which we recommend, you should use the data in the exhibits found in this book in order to match your numbers to our solution.

In this model we are going to project the total revenue, not the individual revenue line items "Net sales" and "Membership and other income." It is up to you to decide how detailed you would like your analysis to be. In many cases revenue can be broken out by product, volume, and even geography. It is also not uncommon to have a completely separate revenue schedule and analysis that will feed into the income statement. Let's keep our revenue projections at this high level for now until we aecine further detail is needed.

We can now start inputting our revenue projections into Excel.
So, we can type 6.0 percent into G.11 G12. $6.0 \%$ is a hardcode and an assumption driver, so remember te Color the font blue. This percent will drive the actual 2013 total revehue projection. We want the 2013 total revenue to be driven off of our assumption or:

> 2013 Tolat Revenue $=2012$ Total Revenue $\times$ $(1+2013$ Revenue Growth Assumption $)$

Calculating 2013 Total Revenue (Cell G11)

| Excel Key Strokes | Description |
| :--- | :--- |
| type " $="$ | Enters into "formula" mode |
| select Cell F11 | 2013 Total Revenue |
| type "*" | Multiplies |
| type "(1+" | Begins the $(1+x \%)$ portion of the formula |
| select Cell G12 | 2012 Growth Assumption |
| type ")" | Closes the $(1+x \%)$ portion of the formula |
| type "Enter" | End |
| Formula Result | =F11" $(1+$ G12 $)$ |

This will give us 2013 total revenue of $\$ 473,767.0$. We can copy Cell G11 and G12 to the right all the way through 2017. (See Table 1.7.)
TABLE 1.7

| Consolidated Income Statements (in U.S.\$ milions except per share amounts) |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Aclupls |  |  | Estimates |  |  |  |  |
| Period Ending January 31 | 2010A | 2011A | 2012A | 2013E | 2014E | 2015E | 2016E | 2017E |
| Revenue |  |  |  |  |  |  |  |  |
| Net sales | 405,132.0 | 418,952.0 | 443,854.0 |  |  |  |  |  |
| \% Growth |  | 3.4\% | 5.90 |  |  |  |  |  |
| Membership and other income | 2,953.0 | 2,897.0 | 3,096.0 |  |  |  |  |  |
| \% Growth |  | -1.9\% | 6.9\% |  |  |  |  |  |
| Total revenue | 408,085.0 | 421,849.0 | 446,950.0 | 473,757.0 | 502,193.0 | 532,324.6 | 564,264.1 | 598,119.9 |
| Y/Y revenue growth (\%) |  | 3.4\% | 6.0\% | , | 6.0\% | 6.0\% | 6.0\% | 6.0\% |

## Cost of Goods Sold

Next let's look at the costs. Again, fully understanding and researching each cost is important in best estimating its future performance. However, such detail may be as difficult to project as the revenue. There are a couple of ways to estimate future costs. First, it is important to consider whether the costs are fixed or variable. A fixed cost is relatively static and may grow a certain percentage year over year. Rent, for example, can be considered a fixed cost as it may only increase 5-10 percent each year, independent of the growth in revenue. In contrast, a variable cost will increase in direct proportion to the growth of the business, most commonly determined by the revenue growth. In other words, if the revenue is increasing by 10 percent, the costs will also increase by 10 percent. If the revenue decreases by 4 percent, the costs will also decrease by 4 percent.

Quite often cost of goods sold is considered a varlable cost. If your revenue is declining, you are most likely selling less pioduct, so your costs should also be decreasing. Conversely, if your revence is increasing, you are most likely selling more product, so cost of goed's sold should be increasing in direct proportion to the revenue. There are, 1 owever, exceptions. For example, a revenue increase could be due to an nincrease in pricing, not because more product has been sold. In this case maybe costs should not be increasing at all (no change in volume). Or aturther twist, maybe the company is raising its prices because the manufacturer who is providing raw materials has raised its prices, so effectivel both revenue and costs should be increasing proportionally. This is where a deeper understanding of the company's business model and cost etfucture comes in handy.

Historical trends can help us determine how best to make initial projections, with the knovedege that we can later tweak as we build a more fundamental understanding of the business. If we analyze the historical cost of goods sold as a percentage of revenue over the past three years, we notice the costs have been around 75 percent of total revenue each year. This consistent trend is a strong indicator that the cost of goods sold could be variable, growing at the same rate as revenue. If the percentages had not been consistent over the past three years, further research would need to be done to better understand the reasons for the variability. The company could have significantly changed its business model or taken other initiatives to significantly increase or decrease its costs in relation to its revenue. In that case, one could listen to the last earnings call or earnings release to get management's views on whether costs of goods sold is expected to increase or decrease.

So, for next year, we want to make an assumption based on the prior year's trends, adjusted based on our research. There are several common methods:

1. Take an average percentage of the last three years.
2. Take a maximum percentage of the last three years (conservative approach).
3. Take a minimum percentage of the last three years (aggressive approach).
4. Take the last year's percentage.
5. Have the percentages steadily increase or decrease year over year.

Note that these are five of the most common methods, but you may look for and identify other trends that may work better based on the individual company's past performance such as percentages decreasing for the next year then staying constant for the next four years.

We always recommend a conservative approach as long as the most conservative approach is within logical reason, so we immedrately eliminate option \#3. We acknowledge that taking the average over the past three years (option \#1) can be a good approach, but we nojice that the maximum percentage of the last three years also happens obe the same as the last year's percentage, which satisfies two conditions (options \#2 and \#4), which is preferred. We do acknowledge that the perentages are slightly increasing year over year, but caution that a further increase without solid evidence could be too much of an increase. Sole's take 75.0 percent as the projection for 2013-2017. Note that all of the methods in the list can be considered accurate; our recommended approåch is simply a suggestion. Remember, the point is to build out a cernplete model with broad assumptions, then to go back and tweak such assumptions as you research and get a stronger understanding of the business.

We can hardcode $25 \%$ into Cell G15 as our assumption driver. The formula for projecting cost of goods sold in 2013 will be:

2013 COGS $=2013$ COGS as a $\%$ of Revenue $x 2013$ Total Revenue

Calculating 2013 COGS (Cell G14)

| Excel Key Strokes | Description |
| :--- | :--- |
| type "=" | Enters into "formula" mode |
| select Cell G15 | 2013 COGS as a \% of Revenue |
| type "*" | Multiplies |
| select Cell G11 | 2013 Total Revenue |
| type "Enter" | End |
| Formula Result | $=G 11 * G 15$ |

This will give us 2013 COGS of $\$ 355,325.3$. We can copy Cell G14 and G15 to the right all the way through 2017. We can also calculate future gross profit and the gross profit margin. We have already calculated these formulas in 2010 through 2012, so we can just copy Cells F16 and F17 through 2017 as well. (See Table 1.8.)

## Operating Expenses

This same procedure can be repeated for each cost on the income statement: conducting adequate research, analyzing the historical trends, and considering whether each cost is fixed or variable in order to best determine which of the five methods should be used to project the costs forward.

Let's analyze the company's operating, selling, genera, and administrative expenses. If we look at the historical expense as a percentage of revenue over the past three years, we notice the costs were 17.8 percent, 17.5 percent, and 17.3 percent for 2010, 2011, and 2012, respectively.We could assume that the costs have been trending down and will continue to do so. However, we recommend furthen cosst reductions may be too aggressive without concrete evidence. Takirg the maximum of the past three years is conservative, which we like owever, since there is a downward trend, the maximum is three years ago, so maybe the maximum approach is too conservative. Let's take the last year approach, though we do realize that taking the average over the past three years could also be a good estimate. So, we can take the 201217.3 percent as our future assumption for 2013-2017. Hardcode 17.3 in, then we can use the formula below to make our projections:

## 2013 SG\&A $=2013$ SG\&A as a \% of Revenue $\times 2013$ Total Revenue

Calculating 2013 SG\&A (Cell G19)

| Excel Key Strokes | Description |
| :--- | :--- |
| type "=" | Enters into "formula" mode |
| select Cell G20 | 2013 SG\&A as a \% of Revenue |
| type "*" | Multiplies |
| select Cell G11 | 2013 Total Revenue |
| type "Enter" | End |
| Formula Result | $=G 11 *$ G20 |

This gives us $\$ 81,961.7$ in 2013. We can copy Cells G19 and G20 to the right. We can also copy the EBITDA and EBITDA margin \% formulas to
TABLE 1.8 Walmart Projected Gross Profit

| Consolidated Income Statements (in U.S.\$ millions except per share amounts) |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Period Ending January 31 | Actuals |  |  | Estimates |  |  |  |  |
|  | 2010A | 2011 A | 2012A | 2013E | 2014E | 2015E | 2016E | 2017E |
| Revenue |  |  |  |  |  |  |  |  |
| Net sales | 405,132.0 | 418,952.0 | 443,854.0 |  |  |  |  |  |
| \% Growth |  | 3.4\% | 5.9\% |  |  |  |  |  |
| Membership and other income | 2,953.0 | 2,897.0 | 5,096.0 |  |  |  |  |  |
| \% Growth |  | -1.9\% |  |  |  |  |  |  |
| Total revenue | 408,085.0 | 421,849.0 | 446,950.0 | 473,767.0 | 502,193.0 | 532,324.6 | 564,264.1 | 598,119.9 |
| Y/Y revenue growth (\%) |  | 3.4\% | 6.0\% | $\int 6.0 \%$ | 6.0\% | 6.0\% | 6.0\% | 6.0\% |
| Cost of goods sold |  |  |  |  |  |  |  |  |
| Cost of goods sold | 304,106.0 | 314,946.0 | 335,127.0 | 355,325.3 | 376,644.8 | 399,243.5 | 423,198.1 | 448,589.9 |
| COGS as a \% of revenue | 74.5\% | 74.7\% | 75.0\% | 75.0\% | $15.0 \%$ | 75.0\% | 75.0\% | 75.0\% |
| Gross profit | 103,979.0 | 106,903.0 | 111,823.0 | 118,441.8 | 125,548.3 | 133,081.2 | 141,066.0 | 149,530.0 |
| Gross profit margin (\%) | 25.5\% | 25.3\% | 25.0\% | 25.0\% | 25.0\% | 25.0\% | 25.0\% | 25.0\% |

the right through 2017 as well. We now have a Walmart model complete up through EBITDA. (See Table 1.9.)

## Depreciation and Amortization

When building a complete financial model it is recommended to leave projected depreciation empty for now. We will build a depreciation schedule that will contain projected depreciation expense to be linked in here. We can, however, copy the EBIT and EBIT margin \% formulas, rows 24 and 25, from 2012 to the right through 2017.

## Interest Income

When building a complete financial model it is recommented to leave projected interest expense and interest income empty. Ve will build a debt schedule that will help us better project interest expense and interest income to be linked in here. We can, however, copy the net interest expense, EBT and EBT margin \% formulas, rows 30, 31 and 32, from 2012 to the right through 2017.

## Taxes

We can take a look at the historical taxes as a percentage of EBT to make our 2013 projections. So, in 2012, Walmart had 32.6 percent in taxes. It is recommended to take a look at the past three years, as we did with the expense line items. Walmart seems to have a steady tax rate at around 32-33 percent of EBIT.

For Walmart, wo could take the 32.6 percent 2012 tax rate to be consistent with tie methods we used in the expense sections (the last year method). However, after doing a quick word search, there is a note on page 31 of the annual report that clearly states Walmart's tax rates will be 32.533.5 percent:

We expect the fiscal 2013 annual effective tax rate to be approximately $32.5 \%$ to $33.5 \%$. Significant factors that may impact the annual effective tax rate include changes in our assessment of certain tax contingencies, valuation allowances, changes in law, outcomes of administrative audits, the impact of discrete items and the mix of earnings among our U.S. and international operations.

Let's use 33 percent, as it falls within Walmart's expected range. We can hardcode $33.0 \%$ into Cell G34 and copy this to the right through 2017.
TABLE 1.9 Walmart Projected EBITDA

| Consolidated Income Statements (in U.S.\$ millions except per share amounts) |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Period Ending January 31 | Actuals |  |  | Estimates |  |  |  |  |
|  | 2010A | 2011A | 2012A | 2013E | 2014E | 2015E | 2016E | 2017E |
| Revenue |  |  |  |  |  |  |  |  |
| Net sales | 405,162.0 | 418,952.0 | 443,854.0 |  |  |  |  |  |
| \% Growth | , | 3.4\% | 5.9\% |  |  |  |  |  |
| Membership and other income | 2,953.0 | 2,997.0 | 3,096.0 |  |  |  |  |  |
| \% Growth |  | -1.9\% | 6.9\% |  |  |  |  |  |
| Total revenue | 408,085.0 | 421,849.0 | 446,950.0 | 473,767.0 | 502,193.0 | 532,324.6 | 564,264.1 | 598,119.9 |
| Y/Y revenue growth (\%) |  | 3.4\% | 3) $6.0 \%$ | 6.0\% | 6.0\% | 6.0\% | 6.0\% | 6.0\% |
| Cost of goods sold |  |  |  |  |  |  |  |  |
| Cost of goods sold | 304,106.0 | 314,946.0 | 335,120) | 355,325.3 | 376,644.8 | 399,243.5 | 423,198.1 | 448,589.9 |
| COGS as a \% of revenue | 74.5\% | 74.7\% | $75.0 \%$ | 75.0\% | 75.0\% | 75.0\% | 75.0\% | 75.0\% |
| Gross profit | 103,979.0 | 106,903.0 | 111,823.0 | 118.441 .8 | 125,548.3 | 133,081.2 | 141,066.0 | 149,530.0 |
| Gross profit margin (\%) | 25.5\% | 25.3\% | 25.0\% | . $25.0 \%$ | 25.0\% | 25.0\% | 25.0\% | 25.0\% |
| Operating expenses |  |  |  |  |  |  |  |  |
| Selling, general, and administrative | 72,820.0 | 73,720.0 | 77,135.0 | 81,961.7 | 85,879.4 | 92,092.2 | 97,617.7 | 103,474.7 |
| $S G * A$ as a \% of revenue | 17.8\% | 17.5\% | 17.3\% | 17.3\% | 17.3\% | 17.3\% | 17.3\% | 17.3\% |
| EBITDA | 31,159.0 | 33,183.0 | 34,688.0 | 36,480.1 | 38,668.9 | 40,989.0 | 43,448.3 | 46,055.2 |
| EBITDA margin (\%) | 7.6\% | 7.9\% | 7.8\% | 7.7\% | 7.7\% | 7.7\% | 7.7\% | 7.7\% |

Note that quite often a company will state a reported tax rate that is slightly different from what has been calculated. This difference could be due to adjustments made to pretax net income or other tax benefits realized. In such cases one can either take the historical percentage or the reported rate. One must make the determination if those adjustments would continue to happen in the future or if the company would pay taxes based on the standard rate. Walmart's annual report states on page 47:

## Effective Tax Rate Reconciliation

> The Company's effective income tax rate is typically lower than the U.S. statutory rate primarily because of benefits from lower-taxed global operations, including the use of global funding structures and certain U.S. tax credits. The Company's non-U.S. incone is subject to local Country tax rates that are below the $35 \%$ U.S. statutory rate. Certain non-U.S. earnings have been indefinitely reinvested outside the U.S. and are not subject to current U.S. income tax.

Calculating 2013 Income Tax Expense (Ceil (c33)

| Excel Key Strokes | Description |
| :--- | :--- |
| type " $="$ | Enters into formula" mode |
| select Cell G34 | 2013 Tax Rate \% |
| type "*" | Multiplies |
| select Cell G31 | 2013 EBT |
| type "Enter" | End |
| Formula Result | $=$ G31*G34 |

This gives us an income tax expense of $\$ 12,038.4$. We can copy cell G33 and G34 to the right through 2017.

Cell F35 ("Net Income (Adjusted)") can be copied through 2017.
You may have noticed that the 2013 taxes appear high compared to 2012. Remember we still do not have depreciation and interest expense in our projections. Once those are linked in, the tax expense will be reduced.

## Non-Recurring Events

We would typically not project non-recurring items as, by definition, given that they are non-recurring or extraordinary, they either will not exist in the future or will not be core to our valuation. However, we caution that there may be some additional analyses where a deeper understanding of nonrecurring events is necessary.

So we can just make these non-recurring events line items, cells G37 and G38 "0" and we can copy that right through 2017.

Cells F39 and F40-"Total Non-Recurring Events" and "Net Income (after Non-Recurring Events)"-can be copied through 2017.

## Non-Controlling Interest

We consider non-controlling interest to be Walmart's "Consolidated net income attributable to non-controlling interest." Non-controlling interest is typically assessed as a percentage of net income. So, as done with the expenses and taxes previously, we can analyze historical percentages to make future projections.

So, in 2012, the portion of net income payable to n.n-controlling interest was 4.2 percent. Since the non-controlling interest is a payout based on total ownership, it would make more logicar sense to use the last year's approach as the best indicator for next year's estimates, unless further research reveals reason for the level of ownership to increase or decrease. We found no such indication. So le's hardcode $4.2 \%$ into cell G43 as our 2013 assumption. The formila for projecting expenses in 2013 will be:

## 2013 Non-Controlling Interest $=2013$ Non-Controlling Interest $\% \times 2013$ Net Income

Calculating 2013 Non-Contrulling Interest (Cell G42)

| Excel Key Strokes | Description |
| :--- | :--- |
| type "=" | Enters into "formula" mode |
| type "-" | Reverses sign to minus |
| select Cell G43 | 2013 Non-Controlling Interest \% <br> type "*" |
| Multiplies |  |
| select Cell G40 | 2013 Net Income (after Non-Recurring Events) |
| type "Enter" | End |
| Formula Result | $=-G 40 * G 43$ |

This gives us $-\$ 1,026.5$ for 2013 income attributable to non-controlling interests. Note that once we have other expenses such as depreciation and interest expense linked into the income statement, the net income will greatly decrease, and so will non-controlling interests. We can now copy these formulas (Cell G42 and G43) to the right through 2017.

We can also copy the 2012 net income (as reported) formula (Cell F44) through to 2017.

## Shares

Basic Shares Outstanding The best way to project the share count is to first get the most current count of basic shares outstanding. This comes from the first page of the most recent filing (in this case, the Walmart $10-\mathrm{Q}$ report). You can find such additional reports for Walmart by selecting "SEC Filings" in the investor relations section of their web site. (See Figure 1.7.)

Scrolling down reveals Walmart's 10-Q filed on September 6, 2012. The bottom of the second page of this report lists the share count of 3,361,444,307. (See Figure 1.8.) We will use this as the 2013 basic share count in Cell G49. Note that we need to divide this number by $1,000,000$ in order to be at equivalent units as the prior years.


FIGURE 1.7 Walmart SEC Filings

Diluted Shares Outstanding and the Treasury Method Diluted shares outstand－ ing is a count of all the shares outstanding in the market plus any stock options are warrants that are exercisable today．What if every stock op－ tion holder who holds in－the－money option contracts decides to exercise on those options today？How many shares would be in the market？The diluted share count attempts to estimate that number of shares．There are several resources we can use to obtain the total number of Walmart diluted

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington，D．C． 20549 FORM 10－Q

## （Mark One）

```
区 Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.
    For the quarterly period ended July 31, 2012.
                            or
\square Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.
            For the transition period from
```

$\qquad$

``` \({ }^{\text {to }}\)
Commission file number 1－6991
```



```
WAL－MART SIORES，INC．
（Exact name of regist ant as specified in its charter）
```


## Delaware

 （Smic or other jurisdiction of

702 S．W．8th Street
Bentonville，Arkansss
（Address of principal exectuth ofnes）

71－0415188
（I．R．S．Empleyer Identification No．）

72716
（Z1p Code）

```
（479）273－4000
（Registrant＇s telephone number，including area code）
Not applicable
（F．－mer name，former address and former fiscal year，if changed since last report）
```

Indicate by check mark whether thi－－ghis rant（1）has filed all reports required to be filed by Section $13 \times 15$（d）of the Securities Exchange Act of 1934 during the preceding 12 months（or such shorter periods th．the registrant was required to file such reports），and（2）has been subject to such filing reguirements for the past 90 days．Yes 図 No $\square$

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site，if any，every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S－T（ $\$ 232,405$ of this chapter）during the preceding 12 months（or for such shorter period that the registrant was required to submit and post such files）．Yes 龱 No 口

Indicate by chock mark whetber the registrant is a large acoelcratod filer，an acceleratod filer，a non－aceelerated filer or a smaller reporting company．Sce definitions of＂large aceelerated filer，＂＂accelerated filer＂and＂xrnaller reporting company＂in Rule $12 \mathrm{~h}-2$ of the Exchange Act．Check One：

Large Accelerated Piler
Non－Accelerated Filer
园 Accelerated Filer
Smaller Reporting Compony
$\square$

Indicate by a check mark whether the registrant is a shell company（as defined in Rule 12b－2 of the Exchange Act）．Yes $\square$ No 图

Indicate the number of shares outstanding of each of the issuer＇s classes of common stock，as of the latest practical date．
Common Stock，\＄0．10 Par Value－3，361，444，307 shares us of August 31， 2012.
FIGURE 1．8 Walmart 10－Q
shares outstanding, but the best way to obtain that diluted share count is to calculate the number ourselves. The best starting point is to pull the most recently reported annual report. Although the Walmart quarterly report is more recent, the quarterly report typically does not contain the option and warrant detail. But, it is always worth taking a look first. Now, in order to get a count of diluted shares, we need to find all notes regarding options and warrants which may be held. Performing a quick word search on "options" reveals a note from page 41 of the Walmart Annual Report. (See Figure 1.9.)

Figure 1.9 represents all outstanding options and their respective exercise price. If the options are "in-the-money" (meaning the options are exercisable) or the current stock price is above the exercise price, then technically these options could be exercised and should be included into our diluted share count. Now, the Walmart stock price was $\$ 61.36$ on January 31, 2012, which was well above any of the strike prices indicated previously. Notice, however, that only 13,596 of the shares were excicisable. Why not all? It is most likely because many of the stock options listed previously have certain restrictions, such as timing, preventing one exercise the stock.

Notice the annual report was filed quite a rew months ago. It could be that, by today, some of those restrictions have been lifted, meaning more options are exercisable. It could also be that many of the options listed have already been exercised and are now induded in the 3,361 number we pulled from the quarterly report. (Remember the quarterly count is from a later date.) Or, maybe more options have been granted after this report had been filed. For these reasons it is important to go through other reports more recent than this annual report to try to get an accurate diluted share count. For example, there could ive supplementary filings since the annual report filing ( $8-\mathrm{Ks}$, for examold) detailing the issuance of new options that should be included, or maty a more recent filing has a more current option table. Unfortunately, Ne did not find any further information for Walmart giving us exact detail. So we will use the $13,596,000$ (the table states shares are in thousands, so we multiplied by 1,000 ) outstanding options at the $\$ 50.49$ exercise strike price. This means that if all options are exercised, they would

| [Shares in thousands) | Restricted Stock and Performance Share Awards |  | Restricted Stock Rights |  | Stock Options ${ }^{\text {\% }}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Weighted-Avers |  | ighted-Aver |  |  |
|  |  | Gant-Dare |  | Gant-Date |  | Weighted-Average |
|  |  | Fair Value |  | Fairvalue |  | Exercise Price |
|  | Shares | Pershare | Shares | PerShare | Shares | PerShare |
| Outstanding at February 1,2011 | 13,617 | \$5233 | 16,838 | \$47.71 | 33,386 | \$49.35 |
| Granted | 5,022 | 55.03 | 5,826 | 47.13 | 2,042 | 42.90 |
| Vested/exercised | $(3,177)$ | 51.26 | $(3,733)$ | 47.26 | $(13,793)$ | 50.22 |
| Forfeited or expired | $(2,142)$ | 52.55 | $(1,310)$ | 47.92 | $[1,483)$ | 48.01 |
| Outstanding at January 31, 2012 | 13,320 | \$53.56 | 17,621 | \$47.76 | 20,152 | \$48.21 |
| Exercisable at January 31, 2012 |  |  |  |  | 13,596 | \$50.49 |
|  |  |  |  |  |  |  |

FIGURE 1.9 Walmart Option Table

TABLE 1.10 Walmart Diluted Shares

## Diluted Shares

| Share price | $\$ 73.82$ |
| :--- | ---: |
| Number of basic shares outstanding | $3,361,444,307$ |
| Number of outstanding options (in the money) | $13,596,000$ |
| Average option strike price | $\$ 50.49$ |
| Total option proceeds | $686,462,040$ |
| Treasury stock method shares repurchased | $9,299,133$ |
| Additional shares outstanding | $4,296,867$ |
| Total diluted shares outstanding | $3,365,741,174$ |

all total a value of $\$ 686,462,040(\$ 50.49 \times 13,596,000)$. Now there is a common method called the treasury method, which states that the exercised options are bought back at the current stock price. If we divide the total value of options exercised by the current stock price (\$68.462,040 / \$73.82), we would get 9,299,133 shares bought back. (We nounded down, as a partial share does not exist.) In other words, 13,596,000 options have been exercised, but 9,299,133 bought back. That gives us 4,296,867 (13,596,000 $9,299,133$ ) new shares outstanding. We add this number to the basic shares outstanding to get $3,365,741,174(3,61,444,307+4,296,867)$. Table 1.10 can be found in row 52. It is not reqaired, but it may be helpful to try and repeat the previous calculation in the table for practice.

In order to get a complete diluted share count, it is crucial to be thorough in making sure you have found all stock options, employee stock options, and warrants that may be exercisable. Often this will be spread across several tables. It is aso recommended to see if there are any additional fillings posted announcing the issuance of options or warrants that would not have been captured in the annual or quarterly filings.

We can enter the diluted shares into Cell G50, dividing by 1,000,000, and then we can copy to the right. We can also consider continuing to reduce the shares in the future, but let's keep it constant for now until we decide to project further share issuances or buybacks.

## Earnings per Share

We can calculate the projected earnings per share using the same formulas as the historical. It is easiest to just copy the formulas over to the right, from Cells F46 and F47 through to 2012.

We now have as much of the income statement as we can complete. (See Table 1.11.)

We will continue on to the cash flow and revisit tweaking the income statement assumptions once the model is complete.
TABLE 1.11 Walmart Projected Income Statement

| Consolidated Income Statements (in U.S.\$ millions except per share amounts) |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actuals |  |  | Estimates |  |  |  |  |
| Period Ending January 31 | 2010A | 2011A | 2012A | 2013E | 2014E | 2015E | 2016E | 2017E |
| Revenue |  |  |  |  |  |  |  |  |
| Net sales | 405,132.e5 | <418,952.0 | 443,854.0 |  |  |  |  |  |
| \% Growth |  | 3.4\% | 5.9\% |  |  |  |  |  |
| Membership and other income | 2,953.0 | 2,897.0 | 3,096.0 |  |  |  |  |  |
| \% Growth |  | $-1.9 \%$ | 6.9\% |  |  |  |  |  |
| Total revenue | 408,085.0 | 421,849.0 | 446.950 .0 | 473,767.0 | 502,193.0 | 532,324.6 | 564,264.1 | 598,119.9 |
| Y/Y revenue growth (\%) |  | 3.4\% | 60\% | 6.0\% | 6.0\% | 6.0\% | 6.0\% | 6.0\% |
| Cost of goods sold |  |  |  |  |  |  |  |  |
| Cost of goods sold | 304,106.0 | 314,946.0 | 335,127.0 | 355,325.3 | 376,644.8 | 399,243.5 | 423,198.1 | 448,589.9 |
| COGS as a \% of revenue | 74.5\% | 74.7\% | 75.0\% | 75.0\% | 75.0\% | 75.0\% | 75.0\% | $75.0 \%$ |
| Gross profit | 103,979.0 | 106,903.0 | 111,823.0 | 118,441.3 | 125,548.3 | 133,081.2 | 141,066.0 | 149,530.0 |
| Gross profit margin (\%) | 25.5\% | $25.3 \%$ | 25.0\% | 25.0\% | 25.0\% | 25.0\% | 25.0\% | 25.0\% |
| Operating expenses |  |  |  |  |  |  |  |  |
| Selling, general, and administrative | 72,820.0 | 73,720.0 | 77,135.0 | 81,961.7 | 86,879.4 | 92,092.2 | 97,617.7 | 103,474.7 |
| $S G * A$ as a \% of revenue | 17.8\% | 17.5\% | 17.3\% | 17.3\% | 17.3\% | 17.3\% | 17.3\% | 17.3\% |
| EBITDA | 31,159.0 | 33,183.0 | 34,688.0 | 36,480.1 | 38,668.9 | 40,989.0 | 43,448.3 | 46,055.2 |

$7.7 \%$

| $7.6 \%$ | $7.9 \%$ | $7.8 \%$ | $7.7 \%$ | $7.7 \%$ | $7.7 \%$ | $7.7 \%$ | $7.7 \%$ |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $7,157.0$ | $7,641.0$ | $8,130.0$ |  |  |  |  |  |
| $24,002.0$ | $25,542.0$ | $26,558.0$ | $36,480.1$ | $38,668.9$ | $40,989.0$ | $43,448.3$ | $46,055.2$ |
| $5.0 \%$ | $6.1 \%$ | $5.9 \%$ | $7.7 \%$ | $7.7 \%$ | $7.7 \%$ | $7.7 \%$ | $7.7 \%$ |

(
TABLE 1.11 (Continued)

| Consolidated Income Statements (in U.S.\$ millions except per share amounts) |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actuals |  |  | Estimates |  |  |  |  |
| Period Ending January 31 | 2010A | 2011A | 2012A | 2013E | 2014E | 2015E | 2016E | 2017E |
| Distributions |  |  |  |  |  |  |  |  |
| Income attributable to noncontrolling interests | (513.0) | .(604.0) | (688.0) | (1,026.5) | (1,088.1) | $(1,153.4)$ | $(1,222.6)$ | $(1,296.0)$ |
| Non-controlling interests \% of net income | 3.4\% | - $\mathrm{i} .6 \%$ | 4.2\% | 4.2\% | 4.2\% | 4.2\% | 4.2\% | 4.2\% |
| Net income (as reported) | 14,370.0 | 16,389.0 | 5,699.0 | 23,415.1 | 24,820.0 | 26,309.2 | 27,887.7 | 29,561.0 |
| Earnings per share (EPS) |  |  |  |  |  |  |  |  |
| Basic | 3.72 | 4.48 | O. 574 | 6.97 | 7.38 | 7.83 | 8.30 | 8.79 |
| Diluted | 3.71 | 4.47 | 45. | 6.96 | 7.37 | 7.82 | 8.29 | 8.78 |
| Average common shares outstanding |  |  |  |  |  |  |  |  |
| Basic | 3,866 | 3,656 | 3,460 | 3,361 | 3,361 | 3,361 | 3,361 | 3,361 |
| Diluted | 3,877 | 3,670 | 3,474 | 3,366. | 3,366 | 3,366 | 3,366 | 3,366 |

